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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,550	06/09/2005	Patrick T. Rigney	ITW-13619	7338
<div>45482      7590      01/15/2009 PAULEY PETERSON &amp; ERICKSON 2800 W. HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195</div>				
EXAMINER				
FERGUSON, LAWRENCE D				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
01/15/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/510,550

**Applicant(s)**

RIGNEY ET AL.

**Examiner**

LAWRENCE D. FERGUSON

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This action is in response to the amendment filed October 16, 2008.

Claims 31-51 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections – 35 USC § 103(a)***

3. Claims 31, 33-35, 37-39, 44-45, 47, 49-51 are rejected under 35 U.S.C. 103(a) as being anticipated by Perez et al. (U.S. 6,331,343).

Perez discloses a strapping material (column 2, lines 30-33) that is uniaxially oriented in at least one major axis, including length (longitudinally) orienting (column 2, lines 5-11 and column 5, lines 27-35). The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches cutting the strapping material (column 9, lines 50-58), it would have been obvious to one of ordinary skill in the art to cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If

the strapping material were used to strap a smaller article, a strapping cut to a smaller width would be expected. The strapping further comprises a polyethylene terephthalate (polyester) or a polybutylene terephthalate (polyester) (column 3, lines 15-25) which may further comprise less than 30 weight percent of a second polymer, such as linear low density polyethylene (column 3, lines 38-51) where the relative amounts of the first polymer and second polymer can vary widely from 99:1 (column 4, lines 46-55).

Because Perez discloses a linear low density polyethylene, it is expected for the linear low density polyethylene to have a main polymer chain that is essentially linear with not more than 5 long chain branches per 1000 ethylene units. Because Perez discloses a linear low density polyethylene strapping, it would have been obvious to one of ordinary skill in the art for the linear low density polyethylene material to cause the strapping to have increased resistance to splitting in the longitudinal direction while under tension, where tension is interpreted as any weight, no matter how small, placed upon the strapping material, as in claims 31, 33, 35, 39, 47 and 51.

Concerning claim 34, because Perez discloses a strapping with more than 97.2% weight percent of polyethylene terephthalate (polyester), it is expected for the polyester material to have an intrinsic viscosity as in claim 34. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 37, 44 and 49, Perez discloses the strapping further comprises styrene block copolymer (column 15, line 62 through column 16, line 12), which is an elastomeric material.

Concerning claims 38, 45 and 50, the material can be stretched in each direction up to 2 to 10 times its original dimension in the direction of stretching (column 9, lines 1-10).

***Claim Rejections – 35 USC § 103(a)***

4. Claims 31-51 are rejected under 35 U.S.C. 103(a) as being anticipated by Perez et al. (U.S. 6,331,343) in view of Nishimura et al (U.S. 5,607,183).

Perez discloses a strapping material (column 2, lines 30-33) that is uniaxially oriented in at least one major axis, including length (longitudinally) orienting (column 2, lines 5-11 and column 5, lines 27-35). The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches cutting the strapping material (column 9, lines 50-58), it would have been obvious to one of ordinary skill in the art to cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If the strapping material were used to strap a smaller article, a strapping cut to a smaller width would be expected.

Because Perez does not specifically teach the polyester in the strapping can be polyethylene naphthalate or polyethylene isophthalate, one of ordinary skill in the art would look to the prior art, such as Nishimura, to teach a specific polyester for use within the disclosed strapping. Nishimura teaches reinforcing belts (straps) for an article (column 1, lines 23-25) where the straps comprise polyester material such as polybutylene terephthalate, polyethylene naphthalate or polyethylene isophthalate (column 14, lines 19-20 and 37-46). Perez and Nishimura are combinable because they are related to a similar technical field, which is reinforcing strap material. Because Nishimura teaches materials such as polyethylene naphthalate and polyethylene isophthalate are known polyester materials within straps, it would have been obvious to one of ordinary skill in the art to substitute polyethylene naphthalate or polyethylene isophthalate for the polyester material of Perez to improve the calender processing ability and compactness of the strapped article (column 14, lines 19-21 and 28-29).

Perez discloses the strapping may comprise less than 30 weight percent of a second polymer, such as linear low density polyethylene (column 3, lines 38-51) where the relative amounts of the first polymer and second polymer can vary widely from 99:1 (column 4, lines 46-55). Because Perez discloses a linear low density polyethylene strapping, it would have been obvious to one of ordinary skill in the art for the linear low density polyethylene material to cause the strapping to have increased resistance to splitting in the longitudinal direction while under tension, where tension is interpreted as any weight, no matter how small, placed upon the strapping material, as in claims 31-36, 39, 42-43, 46-48 and 51.

Concerning claim 34, because Perez discloses a strapping with more than 97.2% weight percent of polyethylene terephthalate (polyester), it is expected for the polyester material to have an intrinsic viscosity as in claim 34. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 37, 40, 44 and 49, Perez discloses the strapping further comprises styrene block copolymer (column 15, line 62 through column 16, line 12), which is an elastomeric material.

Concerning claims 38, 41, 45 and 50, the material can be stretched in each direction up to 2 to 10 times its original dimension in the direction of stretching (column 9, lines 1-10).

***Claim Rejections – 35 USC § 103(a)***

5. Claim 43 and 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perez et al. (U.S. 6,331,343) in view of Steinkamp et al (U.S. 3,862,265).

Perez is relied upon for instant claims 33 as above. Perez does not disclose the polyolefin is grafted with a polar monomer, as in claim 43. Steinkamp teaches a strapping article comprising polyolefins (column 4, lines 12-21, column 10, lines 9-12) where the polyolefin is grafted with maleic anhydride or acrylic acid (polar monomers) (column 12, lines 1-5). Perez and Steinkamp are combinable because they are related

to a similar technical field, which is strapping material. It would have been obvious to one of ordinary skill in the art to have grafted the polyolefin material of Perez with maleic anhydride or acrylic acid (polar monomers), as taught in Steinkamp, to increase the clarity of the polymer material and to strengthen (harden) the strapping (column 9, lines 33-44).

### ***Response to Arguments***

6. The rejection(s) made under 35 U.S.C. 112, second paragraph, over claims 31-51 is withdrawn due to Applicant's arguments.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) have been considered but are unpersuasive. Applicant argues the reference does not disclose how much of the second polymer is needed to perform the required function of initiating voids, where Perez makes no representation that the general weight ratio of 99:1 to 1:99 applies specifically to all of the disclosed polymer combinations. Examiner maintains Perez discloses first and second polymers which can vary widely from 99:1 to 1:99 weight ratio (column 3, lines 38-45 and column 4, lines 46-55) with respect to one another. Applicant's argument that certain polymer combinations would require a greater amount of the second polymer than others is appreciated; however, the disclosure of Perez appears to meet the claim limitation of independent claims 31-34 in that Perez covers a large weight percentage ratio for the first and second polymers. Applicant further argues



Perez does not disclose a polyethylene and polyester combination as required by the instant claims. Examiner respectfully disagrees with Applicant's argument as Perez discloses the strapping comprises a polyethylene terephthalate (polyester) or a polybutylene terephthalate (polyester) (column 3, lines 15-25) which may further comprise less than 30 weight percent of a second polymer, such as linear low density polyethylene (column 3, lines 38-51).

Applicant further argues the claimed invention does not use linear low density polyethylene in an amount sufficient to facilitate microfiber formation as required in Perez et al. Because Perez discloses the linear low density polyethylene is a second polymer that is generally less than 30 weight percent, based on the weight of the first and second polymers (column 3, lines 33-47) and further discloses it can be at a weight percentage as low as 1% (column 4, lines 46-55), it is clear that the claimed invention and the strapping (column 2, lines 30-38) of Perez are capable of having similar structure and formation due to them having similar weight percentages of the first (polyester) and second (linear low density polyethylene) polymers. Applicant argues because the linear low density polyethylene is combined with a polyester in a very small amount which reduces or eliminates longitudinal splitting, this is contrary to the result required by Perez and is unexpected based on the Perez teaching. Perez teaches that the linear low density polyethylene can have a weight percentage of 1%, which is similar to the weight percentage of the claimed polyethylene, which is added to polyester. Because Perez teaches a linear low density polyethylene added to polyester having a similar weight percentage, it is expected for the linear low density polyethylene to have

increased resistance to splitting in the longitudinal direction while under tension.

Although Perez teaches fibrillation during orienting, the reference does not teach the strapping material splitting in the longitudinal direction while under normal use conditions for polyester strapping, such as packaging heavy boxes, pallets loaded with bricks and other heavy objects, as in the instant specification (page 1, lines 5-8). Additionally, although Perez teaches the material is capable of fibrillation, this does not mean that the linear low density polyethylene does not give the strapping an increased resistance to splitting in the longitudinal direction while under tension.

Applicant argues it would not have been obvious from Perez to produce a molecularly oriented strapping having the claimed composition along with a width of 0.5-3cm and a thickness of 0.03-0.20cm. The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches cutting the strapping material (column 9, lines 50-58), it would have been obvious to one of ordinary skill in the art to cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If the strapping material were used to strap a smaller article, a strapping cut to a smaller width would be expected.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) in view of Nishimura et al (U.S. 5,607,183) have been considered but are unpersuasive. Applicant argues Perez does not disclose the use of a linear low density polyethylene in an amount which causes

polyester strapping to have increased resistance to longitudinal splitting while under tension. Perez teaches that the linear low density polyethylene can have a weight percentage of 1%, which is similar to the weight percentage of the claimed polyethylene, which is added to polyester. Because Perez teaches a linear low density polyethylene added to polyester having a similar weight percentage, it is expected for the linear low density polyethylene to have increased resistance to splitting in the longitudinal direction while under tension. Although Perez teaches fibrillation during orienting, the reference does not teach the strapping material splitting in the longitudinal direction while under normal use conditions for polyester strapping, such as packaging heavy boxes, pallets loaded with bricks and other heavy objects, as in the instant specification (page 1, lines 5-8). Additionally, although Perez teaches the material is capable of fibrillation, this does not mean that the linear low density polyethylene does not give the strapping an increased resistance to splitting in the longitudinal direction while under tension.

Applicant further argues Perez does not suggest a strapping with a width of 0.5-5cm and a thickness of 0.3-0.20cm. The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches cutting the strapping material (column 9, lines 50-58), it would have been obvious to one of ordinary skill in the art to cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If the strapping material were used to strap a smaller article, a strapping cut to a smaller width

would be expected. Applicant argues Nishimura does not overcome the deficiencies of Perez. Because Perez has been maintained, Perez in view of Nishimura is maintained for reasons of record.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) in view of Steinkamp et al (U.S. 3,862,265) have been considered but are unpersuasive. Applicant argues Steinkamp does not overcome the deficiencies of Perez. Because Perez has been maintained, Perez in view of Steinkamp is maintained for reasons of record.

Applicant argues the instant invention endeavors to reduce or eliminate longitudinal splitting of polyester strapping, instead of promoting splitting. Examiner agrees the instant invention endeavors to reduce longitudinal splitting; however, the instant invention does not claim to eliminate longitudinal splitting, as argued. Perez teaches that the linear low density polyethylene can have a weight percentage of 1%, which is similar to the weight percentage of the claimed polyethylene, which is added to polyester. Because Perez teaches a linear low density polyethylene added to polyester having a similar weight percentage, it is expected for the linear low density polyethylene to have increased resistance to splitting in the longitudinal direction while under tension. Although Perez teaches fibrillation during orienting, the reference does not teach the strapping material splitting in the longitudinal direction while under normal use conditions for polyester strapping, such as packaging heavy boxes, pallets loaded with bricks and other heavy objects, as in the instant specification (page 1, lines 5-8). Applicant argues Perez prefers polypropylene as the polymer mixed with polyester.

Applicant is limiting the scope of Perez's invention, which teaches adding linear low density polyethylene to polyester in a strapping material.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil, can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/  
Patent Examiner, Art Unit 1794

/JENNIFER MCNEIL/  
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